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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/757,547	01/10/2001	Kenichi Suzuki	450100-02931	9718

20999 7590 07/27/2005

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EXAMINER	
ORTIZ CRIADO, JORGE L	
ART UNIT	**PAPER NUMBER**
2655	

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/757,547	SUZUKI, KENICHI	
	Examiner	Art Unit	
	Jorge L. Ortiz-Criado	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto U.S. Patent No. 6,335,909 in view of the "Applicant's admitted prior art".

Regarding claim 1, Hashimoto discloses an optical disc apparatus comprising:

an optical pickup for irradiating a light beam through "a two-focus lens"(see col. 3, lines 19-29; for use in multi-layer disks, hence two or more focus) onto a signal recording surface of an optical disc including the signal recording surface where digital data is recorded to be optically readable, and for detecting reflection light thereof using plural detectors generating at least A,B,C and D detection signals; said two-focus lens being an objective lens having focuses at two positions (See Abstract; col. 2. line 56 to col. 3, line 28; col. 3, line 29 to col. 4, line 37 Fig. 1);

drive control means for driving and controlling the two-focus lens in an optical axis direction of the light beam (See col. 2. line 56 to col. 3, line 28; Fig. 1);

focus error center value measurement means for measuring a focus error center value detected by the optical pickup (See col. 2, lines 41 to col. 4, line 18)

focus error signal generation means for generating a focus error signal subjected to balance-adjustment based on the reflection light and a variable coefficient Kf, wherein said focus error signal (FE) is generated by the equation FE=(A+C)-Kf*(B+D) (See col. 2, lines 41 to col. 4, line 18; Fig. 1, output of ref#2, signal S1) and

focus balance control means for causing the drive control means to control a focus balance, based on the focus error center value measured by the focus error center value measurement means (See Fig. 1, ref# 6), and

the focus error signal generated by the focus error signal generation means and subjected to the balance adjustment (See col. 2, lines 41 to col. 4, line 18; Fig. 1, output of ref#2, signal s1)

whrein the focus balance control means changes the value of said variable coefficient Kf, based on the focus error center value and the balance adjusted focus error signal, until a minimum difference is obtained between the focus error signal and the focus error center value (see col. 3, lines 56 to col. 4, line 8)

Hashimoto teaches that the focusing method for the servo focusing adjustment is well known in the art, but does not expressly disclose wherein said light beam is focused on said signal recording surface by driving said two-focus lens in a down-search in such a manner that S-shaped fake signals do not occur before S-shaped true signal.

However, this feature is well known in the art as evidenced by "Applicant's admitted prior art", which discloses an optical disc reproducing apparatus having a two-focus lens objective lens, and driving the objective lens by **a so-called down-search**, wherein the objective

lens is focused in the optical disc in a direction in which the lens moves apart from a position closer to the optical disc than the focus position. Inherently present in a **down search** is the presence of S-shaped fake signals that do not occur before S-shaped true signal, (See page 3, lines 5-13)

Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to perform a focusing servo adjustment in **a down-search**, because by doing that the signal called S-shaped fake is avoided to be detected before a true S-shaped signal and further providing the focus servo to turn on at the time of the S-shape true signal, as taught by "Applicant's admitted prior art"

Regarding claims 2 and 7, Hashimoto further discloses focus/tracking bias voltage supply means for supplying the drive control means with a focus/tracking bias voltage; and focus/tracking bias control means for causing the focus/tracking bias voltage supply means to supply the drive control means with the focus/tracking bias voltage, thereby to cause the drive control means to control a focus/tracking bias (See col. 2, lines 41 to col. 4, line 18; Fig. 1, ref# 6,7)

Regarding claims 3 and 8, Hashimoto further discloses wherein the two-focus lens forms two focus positions by one single objective lens, corresponding to a plurality of discs having respectively different disc substrate thicknesses (See Abstract; col. 2, lines 19-39; col. 5, lines 6-37)

Regarding claims 4 and 9, Hashimoto further discloses wherein the focus error center value measurement means measures an error center value with the two-focus lens kept sufficiently distant from a just-focus position (See col. 2, lines 41 to col. 4, line 18)

Regarding claims 5 and 10, Hashimoto further discloses wherein a plurality of values including an initial value used as a reference are set and stored for the coefficient Kf (See col. 2, lines 41 to col. 4, line 18)

Regarding claim 6, Hashimoto further discloses an optical disc apparatus comprising:

an optical pickup for irradiating a light beam through a two-focus lens onto a signal recording surface of an optical disc including the signal recording surface where digital data is recorded to be optically readable, and for detecting reflection light thereof using plural detectors generating at least E and F detection signals; said two-focus lens being an objective lens having focuses at two positions (See Abstract; col. 2. line 56 to col. 3, line 28; Fig. 1);

drive control means for driving and controlling the two-focus lens in a radial direction of the optical disc (See col. 2. line 56 to col. 3, line 28; Fig. 1);

tracking error center value measurement means for measuring a tracking error center value detected by the optical pickup (See col. 2, lines 41 to col. 4, line 18);

tracking error signal generation means for generating a tracking error signal subjected to balance-adjustment based on the reflection light and a variable coefficient Kt; wherein said tracking error signal (TE) is generated by the equation, TE=E-Kt*F (See col. 2, lines 41 to col. 4, line 18; Fig. 1, output of ref#4, signal S2), and

tracking balance control means for causing the drive control means to control a tracking balance, based on the tracking error center value measured by the tracking error center value measurement means (See Fig. 1, ref# 6), and

the tracking error signal generated by the tracking error signal generation means and subjected to the balance adjustment. (See col. 2, lines 41 to col. 4, line 18; Fig. 1, output of ref#4, signal S2)

wherein the tracking balance control means changes the value of said variable coefficient Kt, based on the tracking error center value and the balance adjusted tracking error signal, until a main focus spot of said light beam is just above a recording track on said signal recording surface on the optical disk (see col. 3, line 56 to col.4, line 52)

Hashimoto teaches that the focusing method for the servo focusing adjustment is well known in the art, but does not expressly disclose wherein said light beam is focused on said signal recording surface by driving said two-focus lens in a down-search in such a manner that S-shaped fake signals do not occur before S-shaped true signal.

However, this feature is well known in the art as evidenced by "Applicant's admitted prior art", which discloses an optical disc reproducing apparatus having a two-focus lens objective lens, and driving the objective lens by **a so-called down-search**, wherein the objective lens is focused in the optical disc in a direction in which the lens moves apart from a position closer to the optical disc than the focus position. Inherently present in a **down search** is the presence of S-shaped fake signals that do not occur before S-shaped true signal, (See page 3, lines 5-13)

Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to perform a focusing servo adjustment in **a down-search**, because by doing that the signal called S-shaped fake is avoided to be detected before a true S-shaped signal and further providing the focus servo to turn on at the time of the S-shape true signal, as taught by "Applicant's admitted prior art"

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. J.P 08-249682 to Ueki et al., who teaches a focus and tracking balance control method and apparatus having focus error signal generation means for generating a focus error signal subjected to balance-adjustment based on the reflection light and a variable coefficient Kf, wherein said focus error signal (FE) is generated by the equation FE=(A+C)-Kf*(B+D) and a tracking error signal generation means for generating a tracking error signal subjected to balance-adjustment based on the reflection light and a variable coefficient Kt; wherein said tracking error signal (TE) is generated by the equation, TE=E-Kt*F

Response to Arguments

Applicant's arguments filed 07/06/2005 have been fully considered but they are not persuasive.

Applicants argues that Hashimoto dos not teach or suggest an analogous focus error center value, tracking error center value, variable coefficient Kf and variable coefficient Kt.

The examiner cannot concur with applicant assertions because; Hashimoto measures a focus/tracking error center value by detecting the positive and negatives amplitudes waveform signal are not equal to each other and corrects the coefficients Kf and Kt, which are controlled by varying the resistance R2 and R4, until the minimum error on amplitude of positive and negatives amplitudes of the error signal is obtained in the tracking error and focus error signal, to obtain the "balance adjustment". The value Kf is varied with the resistance R2 and the value Kt is varied with the resistance R4, balancing the positive and negative amplitudes.

The "error center value" of applicant appears to be the error of the positive and negatives amplitudes of the error signal when they are not equal to each other, as shown in Fig. 4, in the focus balance adjustment shown. Hence, Hashimoto teaches analogous values of focus error center value, tracking error center value, variable coefficient Kf and variable coefficient Kt.

Office personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. > E-Pass Techs., Inc. v. 3Com Corp., 343 F.3d 1364, 1369, 67 USPQ2d 1947, 1950 (Fed. Cir. 2003) (claims must be interpreted "in view of the specification" without importing limitations from the specification into the claims unnecessarily).< In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969). See also In re Zletz, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L. Ortiz-Criado whose telephone number is (571) 272-7624. The examiner can normally be reached on Mon.-Thu.(8:30 am - 6:00 pm),Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne R. Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

joc

W. R. YOUNG
PRIMARY EXAMINER